

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|----------------|----------------------|---------------------|------------------|
| 10/519,796 | 12/29/2004 | Hiroshi Kojima | DAIN:795 | 3067 |
| 25944 7 | 590 11/27/2006 | | EXAMINER | |
| OLIFF & BERRIDGE, PLC P.O. BOX 19928 | | | MATZEK, MATTHEW D | |
| ALEXANDRIA, VA 22320 | | | ART UNIT | · PAPER NUMBER |
| | • | | 1771 | |

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | L |
|--|---|---|----|
| | Application No. | Applicant(s) | |
| | 10/519,796 | KOJIMA, HIROSHI | |
| Office Action Summary | Examiner | Art Unit | |
| | Matthew D. Matzek | 1771 | |
| The MAILING DATE of this communication a Period for Reply | ppears on the cover sheet w | ith the correspondence address | |
| A SHORTENED STATUTORY PERIOD FOR REF WHICHEVER IS LONGER, FROM THE MAILING - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory perions are period for reply within the set or extended period for reply will, by state the provided by the Office later than three months after the main earned patent term adjustment. See 37 CFR 1.704(b). | DATE OF THIS COMMUNION (1.136(a). In no event, however, may a low will apply and will expire SIX (6) MON oute, cause the application to become AB | CATION. eply be timely filed ITHS from the mailing date of this communication. BANDONED (35 U.S.C. § 133). | |
| Status | | | |
| 1) Responsive to communication(s) filed on <u>08</u> | September 2006. | | |
| 2a) This action is FINAL . 2b) ⊠ Th | nis action is non-final. | | |
| 3) Since this application is in condition for allow | • | · | |
| closed in accordance with the practice under | r Ex parte Quayle, 1935 C.D | . 11, 453 O.G. 213. | |
| Disposition of Claims | | | |
| 4) Claim(s) 1-10 is/are pending in the application 4a) Of the above claim(s) 9 and 10 is/are with 5) Claim(s) is/are allowed. 6) Claim(s) 1-8 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and | ndrawn from consideration. | | |
| Application Papers | | | |
| 9) ☐ The specification is objected to by the Examin 10) ☑ The drawing(s) filed on 29 December 2004 is Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) ☐ The oath or declaration is objected to by the I | /are: a)⊠ accepted or b) ne drawing(s) be held in abeyar nection is required if the drawing | ce. See 37 CFR 1.85(a). (s) is objected to. See 37 CFR 1.121(d) | ı. |
| Priority under 35 U.S.C. § 119 | | | |
| a) All b) Some * c) None of: 1. Certified copies of the priority docume 2. Certified copies of the priority docume 3. Copies of the certified copies of the priority docume application from the International Bure * See the attached detailed Office action for a list | nts have been received. nts have been received in A iority documents have been au (PCT Rule 17.2(a)). | pplication No received in this National Stage | |
| Attachment(s) | | • | |
| 1) Notice of References Cited (PTO-892) | | ummary (PTO-413) | |
| Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 12/04. | |)/Mail Date formal Patent Application | |

Election/Restrictions

1. Applicant's election with traverse of Group 1, claims 1-8 in the reply filed on 9/8/2006 is acknowledged. The traversal is on the ground(s) that there is a special technical feature that binds the two groups together. Examiner agrees that there are common limitations between the groups, but only Group 2 contains a blackened layer of Cu-Co alloy particles. Furthermore, Applicant's arguments are not found persuasive because the common technical feature of instant claim 1 is found in the prior art. This will explained in detail in the rejection section of this Office Action.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 2. Claims 1 and 5-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Kojima et al.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Page 3

Art Unit: 1771

Kojima et al. teach an electromagnetic shielding member (title) comprising a transparent film substrate (transparent base) and a metal mesh layer consisting of metal foil provided on the surface of the substrate (abstract). On top of the metal mesh layer copper bosses may be electrodeposited [0073] and then the entire article is blackened via chromating process [0040]. As illustrated in Figure 12 the copper bosses are particles 1300 upon which the blackening layer 1100 is laid. Examiner equates the copper boss particles to the instantly claimed blackened layer and the chromate layer to the density-intensifying layer that is formed on said blackened layer. Claim 6 is rejected as Figure 9 illustrates a transparent resin such that the surface of the transparent resin fills up the openings flush with the surface of the metal layer. Claims 7 and 8 are rejected as the transparent resin may contain an absorber, which can absorb wavelengths of visible light and/or near infrared [0035].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. as applied to claim 1 above, and further in view of Hong et al. (EP 0 831 074 A2). The disclosure of Kojima et al. is silent as to the use of a Cu-Co alloy for the blackened, shielding layer.

Art Unit: 1771

a. Hong et al. teach the use of a ceramic composition for absorbing electromagnetic waves comprising a mixture of Cu and Co (abstract). The final powder has a particle size of 1 micron (Example 1).

Page 4

- b. Since Hong et al. and Kojima et al. are from the same field of endeavor (i.e. electromagnetic shielding materials), the purpose disclosed by Hong et al. would have been recognized in the pertinent art of Kojima et al.
- c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have replaced the copper bosses of Kojima et al. with the ceramic composition of Hong et al. The skilled artisan would have been motivated by the desire to create an article that absorbs more electromagnetic waves than previously possible (page 2, lines 33-35).
- 4. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. as applied to claim 1 above, and further in view of Nippon Mining Co (JP 62-107039). The disclosure of Kojima et al. is silent as to the use of a Cu-Co alloy for the blackened, shielding layer. In this Office Action the translated abstract will be used, but a full translation will be provided with the next action.
 - a. The Japanese patent teaches the use of a Cu-Co alloy for use as an electromagnetic wave shielding material.
 - b. Since JP 62-107039 and Kojima et al. are from the same field of endeavor (i.e. electromagnetic shielding materials), the purpose disclosed by the JP patent would have been recognized in the pertinent art of Kojima et al.

Art Unit: 1771

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have replaced the copper bosses of Kojima et al. with the copper alloy of JP 62-107039. The skilled artisan would have been motivated by the desire to create an article that has excellent corrosion resistance and high conductivity on a metal foil for an electromagnetic shield.

Page 5

- 5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. and Nippon Mining Co (JP 62-107039) as applied to claim 2 above, and further in view of Kadokura et al. (US 5,158,657). The disclosure of Kojima et al. is silent as to the size of the particle for, use in the blackened layer.
 - a. Kadokura teaches the creation of a circuit substrate and process for its production comprising a conductive film layer 3 that is formed via electro-deposition. The conductive film layer is made conductive with a powder comprising Co and Cu with particle sizes preferably ranging from 0.05 to 1 micron (col. 5, lines 46-55).
 - b. Since Kadokura and Kojima et al. are from the same field of endeavor (i.e. electromagnetic shielding materials), the purpose disclosed by Kadokura would have been recognized in the pertinent art of Kojima et al.
 - c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made the conductive particles of Kojima et al. with the particle sizes taught by Kadokura. The skilled artisan would have been motivated to use particles of that specific size because smaller particles would cause secondary agglomeration and larger particles would cause a problem of sedimentation of particles (col. 5, lines 25-31).

Application/Control Number: 10/519,796 Page 6

Art Unit: 1771

Double Patenting

6. Claims 1, 5-8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 5,6 and 8; 4 and 5; 9 and 10; 3; 18; and 1-6 of copending Application Nos. 10/297,830; 10/370,098; 10/521,997; 10/519,454; 10/562,424; 10/550,948, respectively. Although the conflicting claims are not identical, they are not patentably distinct from each other because all of the instant claims recite an electromagnetic shielding sheet comprising a transparent base, a mesh metal layer, and a blackened layer formed on one of the surfaces of the metal layer.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. Claims 1, 5-8 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 5-14 of U.S. Patent No. 7,037,594. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed article and the applied patent recite an electromagnetic shielding sheet comprising a transparent base, a mesh metal layer, and a blackened layer formed on one of the surfaces of the metal layer.

Information Disclosure Statement

8. The references cited by the International Search report have been reviewed and considered by Examiner. However at this point in the U.S. case's prosecution, Examiner is of the opinion that the aforementioned references should not be applied in prior art rejections.

Art Unit: 1771

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423.

The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mdm

MOM

Norca L. Torres-Velazquez Primary Examiner

Art Unit 1771

November 20, 2006

Page 7